

REMARKS

This Application has been carefully reviewed in light of the Office Action mailed December 22, 2005 ("Office Action"). To clarify various aspects of the inventive subject matter, Applicant has amended Claims 68 and 71. Applicant also cancels Claim 70 without prejudice or disclaimer. To advance prosecution of this application, Applicant has responded to each notation by the Examiner. Applicant submits that all of the pending claims are allowable over the cited reference. Applicant respectfully requests reconsideration, further examination, and favorable action in this case.

Claim Rejections under 35 U.S.C. § 112

The Examiner rejected Claims 58-62 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In particular the Examiner argues that "[I]t is unclear, vague and indefinite to "the **substantially** similar sets of optical signals, **substantially** communicating, **substantially** completing tuning, **substantially** similar set, **substantially** rejecting."

Applicant notes that the essential inquiry pertaining to the definiteness requirement is whether the claims set out and circumscribe subject matter with a reasonable degree of clarity and particularity. Definiteness of claim language must be analyzed, not in a vacuum, but in light of: (a) the content of the particular application disclosure; (b) the teachings of the prior art; and (c) the claim interpretation that would be given by one possessing ordinary skill in the art at the time the invention was made. M.P.E.P. § 2173.02. Furthermore, the test for indefiniteness under Section 112, second paragraph, is whether "those skilled in the art would understand what is claimed when the claim is read in light of the specification." M.P.E.P. §2173.02 (citing *Orthokinetics, Inc. v. Safety Travel Chairs, Inc.*, 806 F.2d 1565, 1576 (Fed. Cir. 1986)). Applicant respectfully submits that the meaning of Claims 58-62 would be clear to one of ordinary skill in the art at the time of invention such that these claims comply with 35 U.S.C. § 112, second paragraph. Applicant discusses Claims 58 and 59 as examples.

The relevant portion of Claim 58 recites "communicating from the star switching fabric a plurality of substantially similar sets of the optical signals" In addition, the

relevant portion of Claim 59 recites that “tuning a second tunable filter of the plurality of tunable filters to a second wavelength comprises at least substantially completing tuning of the second filter before the first filter completes processing of the optical signal having primarily the first wavelength.”

The M.P.E.P. and the courts clearly condone the use of the term “substantially” in claims. *See* M.P.E.P. § 2173.05(b).D citing *Andrew Corp. v. Gabriel Electronics*, 847 F.2d 819, 6 U.S.P.Q.2d 2010 (Fed. Cir. 1988). Moreover, Applicant respectfully submits that the meaning and scope of Claim 1 would be clear to one of ordinary skill in the art at the time of invention, whether the claim is read alone or in combination with the Specification. For example, Applicant respectfully directs the Examiner attention to at least Page 13, Line 7 through Page 14, Line 2; Page 30, Lines 27-32; Page 66, Lines 7-21; and Page 67, Lines 9-16, which provide example descriptions corresponding to these claims. Claim 58 and its dependent claims, including Claim 59, are therefore definite. For substantially similar reasons, Claims 60-62 are definite.

The scope of Claims 58-62 is reasonably ascertainable by those skilled in the art and thus the claims are not indefinite. *See* M.P.E.P. § 2173.05(e) (citing *Ex parte Porter*, 25 USPQ2d 1144, 1145 (Bd. Pat. App. & Inter. 1992)). Applicant respectfully request the Examiner to withdraw the rejections under 35 U.S.C. § 112, second paragraph.

Claim Rejections under 35 U.S.C. § 103

The Examiner rejected Claims 58-66 and 68-91 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent Serial No. 5,530,575 issued to Acampora et al. (“*Acampora*”) in view of U.S. Publication No. 2002/0191250 by Graves et al. (“*Graves*”). Applicant respectfully traverses these rejections for the reasons discussed below.

Applicant provides a reminder that to defeat a patent under 35 U.S.C. § 103, “the prior art reference must teach, disclose, or suggest all the claim limitations.” *In re Vaeck*, 947 F.2d 488 (Fed. Cir. 1991); M.P.E.P. § 706.02(j). Applicant respectfully submit that neither *Acampora* nor *Graves*, taken alone or in combination, teach or suggest, either expressly or inherently, a number of elements of the pending Claims.

A. The Proposed *Acampora-Graves* Combination Fails to Disclose, Teach, or Suggest Each and Every Limitation Recited in Claim 58 and 62

Applicant submits that Claim 58 is patentable over *Acampora* in view of *Graves*. Among other features, Claim 58 recites, in part, “processing one of the optical signals received having primarily a first wavelength using a first tunable filter of the plurality of tunable filters tuned to the first wavelength.” In addition, Claim 58 recites, in part, “tuning a second tunable filter of the plurality of tunable filters to a second wavelength while the first tunable filter processes the optical signal having primarily the first wavelength.”

The Examiner acknowledges that *Acampora* does not disclose these limitations. (Office Action, Page 3) However, the Examiner argues that *Graves* discloses these limitations. (Office Action, Pages 3-4) Applicants respectfully disagree; the teachings of *Graves* do not atone for the deficiencies of *Acampora*.

For example, *Graves* fails to teach, disclose, or suggest tuning a second tunable filter of the plurality of tunable filters to a second wavelength while the first tunable filter of the plurality of tunable filters processes the optical signal having primarily the first wavelength. The Examiner cites Paragraphs 0184, 0202, and 0203 of *Graves* as allegedly disclosing these limitations. (Office Action, Page 3) Applicants respectfully disagree.

The cited portions of *Graves* relate to communicating, multiplexing, and demultiplexing wavelengths formatted in a particular wavelength plan through the system described in *Graves*. Nowhere do the cited portions of *Graves* mention or discuss processing a first wavelength using a first tunable optical filter or tuning a second optical filter to a second wavelength. Moreover, the cited portions of *Graves* fail to teach or even suggest tuning a second tunable filter of the plurality of tunable filters to a second wavelength while the first tunable filter of the plurality of tunable filters processes the optical signal having primarily the first wavelength.

For at least these reasons, Applicant submits that *Acampora* and *Graves*, taken alone or in combination, fail to teach or suggest Claim 58. Applicant respectfully requests withdrawal of the rejection and full allowance of independent Claim 58 and all claims depending therefrom.

Applicant submits that independent Claim 62 is patentable over *Acampora* in view of *Graves* for reasons analogous to those discussed above. Thus, Applicant respectfully requests withdrawal of the rejection and full allowance of Claim 62 and all claims depending therefrom.

B. The Proposed *Acampora-Graves* Combination Fails to Disclose, Teach, or Suggest Each and Every Limitation Recited in Claims 65 and 83

Applicant submits that Claim 65 is patentable over *Acampora* in view of *Graves*. Among other features, Claim 65 recites, in part, “receiving at a first line card a first optical packet comprising a payload and having a first duration.” In addition, Claim 65 recites, in part, “generating, based on the first packet, an optical router packet comprising the payload and having a second duration shorter than the first duration, the optical router packet having a first wavelength.”

Nowhere does *Acampora* teach or suggest generating, based on a first packet received at a first line card, an optical router packet comprising the payload of the first packet and ***having a second duration that is shorter than the first duration*** of the first packet. In fact, none of the cited portions of *Acampora* even mention that any of its optical packets can have differing durations. Moreover, none of the cited portions of *Acampora* even teach or suggest an optical router packet (e.g., the packet communicated through the star switching fabric) that has a ***duration shorter than*** a duration of an optical packet received by the router. Consequently, *Acampora* fails to teach or suggest “receiving at a first line card a first optical packet comprising a payload and having a first duration” and “generating, based on the first packet, an optical router packet comprising the payload and having a second duration shorter than the first duration, the optical router packet having a first wavelength.”

The teachings of *Graves* do not atone for the deficiencies of *Acampora*. For example, the cited portions of *Graves* fail teach or suggest generating, based on a first packet received at a first line card, an optical router packet comprising the payload of the first packet and having ***a second duration that is shorter than the first duration*** of the first packet. In fact, none of the cited portions of *Graves* even mention that any of its optical packets can have differing durations. Moreover, none of the cited portions of *Graves* even teach or suggest an

optical router packet (e.g., the packet communicated through the star switching fabric) that has a *duration shorter than* a duration of an optical packet received by the router. Consequently, *Graves* fails to teach or suggest “receiving at a first line card a first optical packet comprising a payload and having a first duration” and “generating, based on the first packet, an optical router packet comprising the payload and having a second duration shorter than the first duration, the optical router packet having a first wavelength.”

For at least these reasons, Applicant submits that *Acampora* and *Graves*, taken alone or in combination, fail to teach or suggest Claim 65. Applicant respectfully requests withdrawal of the rejection and full allowance of independent Claim 65 and all claims depending therefrom.

Applicant submits that independent Claim 83 is patentable over *Acampora* in view of *Graves* for reasons analogous to those discussed above. Thus, Applicant respectfully requests withdrawal of the rejection and full allowance of Claim 83 and all claims depending therefrom.

C. The Proposed *Acampora-Graves* Combination Fails to Disclose, Teach, or Suggest Each and Every Limitation Recited in Claims 68 and 71

Applicant submits that amended Claim 68 is patentable over *Acampora* in view of *Graves*. Among other features, amended Claim 68 recites, in part, “receiving at a first line card a plurality of optical packets each comprising a payload and a first identifier of a common destination element.” In addition, amended Claim 68 recites, in part, “generating at the first line card an aggregated frame by encapsulating the plurality of optical packets with a second identifier of the common destination element, the aggregated frame comprising at least the payloads of each of the plurality of optical packets having the first identifier of the common destination element.”

Nowhere does *Acampora* teach or suggest receiving at a first line card a plurality of optical packets each comprising a payload and a first identifier of a common destination element and generating at the first line card an aggregated frame *by encapsulating the plurality of optical packets with a second identifier of the common destination element*, the aggregated frame comprising at least the payloads of each of the plurality of optical packets

having the first identifier of the common destination element. In fact, none of the cited portions of *Acampora* even mention, much less teach or suggest, encapsulating a plurality of optical packets received by a line card. Consequently, *Acampora* fails to teach or suggest “receiving at a first line card a plurality of optical packets each comprising a payload and a first identifier of a common destination element” and “generating at the first line card an aggregated frame by encapsulating the plurality of optical packets with a second identifier of the common destination element, the aggregated frame comprising at least the payloads of each of the plurality of optical packets having the first identifier of the common destination element.”

The teachings of *Graves* do not atone for the deficiencies of *Acampora*. For example, the cited portions of *Graves* fail to teach or suggest receiving at a first line card a plurality of optical packets each comprising a payload and a first identifier of a common destination element and generating at the first line card an aggregated frame ***by encapsulating the plurality of optical packets with a second identifier of the common destination element***, the aggregated frame comprising at least the payloads of each of the plurality of optical packets having the first identifier of the common destination element. To the extent that *Graves* discusses any form of aggregation, this discussion is limited to SONET aggregation. *See e.g., Paragraph 0035*. However, none of the cited portions of *Graves* even mention, much less teach or suggest, encapsulating the plurality of optical packets received by a line card with a second identifier of the common destination element. Consequently, *Graves* fails to teach or suggest “receiving at a first line card a plurality of optical packets each comprising a payload and a first identifier of a common destination element” and “generating at the first line card an aggregated frame by encapsulating the plurality of optical packets with a second identifier of the common destination element, the aggregated frame comprising at least the payloads of each of the plurality of optical packets having the first identifier of the common destination element.”

For at least these reasons, Applicant submits that *Acampora* and *Graves*, taken alone or in combination, fail to teach or suggest Claim 68. Applicant respectfully requests withdrawal of the rejection and full allowance of independent Claim 68 and all claims depending therefrom.

Applicant submits that independent Claim 71 is patentable over *Acampora* in view of *Graves* for reasons analogous to those discussed above. Thus, Applicant respectfully requests withdrawal of the rejection and full allowance of Claim 71 and all claims depending therefrom.

D. The Proposed *Acampora-Graves* Combination is Improper

The rejection of Applicant's claims is also improper because the Examiner has not shown the required teaching, suggestion, or motivation in *Acampora*, *Graves*, or in the knowledge generally available to those of ordinary skill in the art at the time of the invention to combine or modify the *Acampora* or *Graves* in the manner the Examiner proposes. The rejected claims are allowable for at least this additional reason.

1. The Obviousness Standard

The question raised under 35 U.S.C. § 103 is whether the prior art taken as a whole would suggest the claimed invention taken as a whole to one of ordinary skill in the art at the time of the invention. Accordingly, even if all elements of a claim are disclosed in various prior art references, which is certainly not the case here as discussed above, the claimed invention taken as a whole cannot be said to be obvious without some reason given in the prior art why one of ordinary skill at the time of the invention would have been prompted to modify the teachings of a reference or combine the teachings of multiple references to arrive at the claimed invention. It is clear based at least on the many distinctions discussed above that the proposed *Acampora-Graves* combination does not, taken as a whole, suggest the claimed invention, taken as a whole. Respectfully, it appears to Applicant that the Examiner has *merely pieced together disjointed portions of references, with the benefit of hindsight using Applicant's claims as a blueprint, in an attempt to reconstruct Applicant's claims.*

The governing Federal Circuit case law makes this strict legal standard clear.¹ According to the Federal Circuit, "a showing of a suggestion, teaching, or motivation to combine or modify prior art references is an essential component of an obviousness holding." *In re Sang-Su Lee*, 277 F.3d 1338, 1343, 61 U.S.P.Q.2d 1430, 1433 (Fed. Cir. 2002) (quoting *Brown & Williamson Tobacco Corp. v. Philip Morris Inc.*, 229 F.3d 1120, 1124-25, 56

¹ Note M.P.E.P. 2145 X.C. ("The Federal Circuit has produced a number of decisions overturning obviousness rejections due to a lack of suggestion in the prior art of the desirability of combining references.").

U.S.P.Q.2d 1456, 1459 (Fed. Cir. 2000)). “Evidence of a suggestion, teaching, or motivation . . . may flow from the prior art references themselves, the knowledge of one of ordinary skill in the art, or, in some cases, the nature of the problem to be solved.” *In re Dembiczak*, 175 F.3d 994, 999, 50 U.S.P.Q.2d 1614, 1617 (Fed. Cir. 1999). However, the “range of sources available . . . does not diminish the requirement for actual evidence.” *Id.* ***Although a prior art device “may be capable of being modified to run the way the apparatus is claimed, there must be a suggestion or motivation in the reference to do so.”*** *In re Mills*, 916 F.2d at 682, 16 U.S.P.Q.2d at 1432 (emphasis added). *See also In re Rouffet*, 149 F.3d 1350, 1357, 47 U.S.P.Q.2d 1453, 1457-58 (Fed. Cir. 1998) (***holding a prima facie case of obviousness not made where the combination of the references taught every element of the claimed invention but did not provide a motivation to combine***); *In Re Jones*, 958 F.2d 347, 351, 21 U.S.P.Q.2d 1941, 1944 (Fed. Cir. 1992) (“Conspicuously missing from this record is any evidence, other than the PTO’s speculation (if that can be called evidence) that one of ordinary skill in the herbicidal art would have been motivated to make the modification of the prior art salts necessary to arrive at” the claimed invention.). Even a determination that it would have been obvious to one of ordinary skill in the art at the time of the invention to try the proposed modification or combination is not sufficient to establish a *prima facie* case of obviousness. *See In re Fine*, 837 F.2d 1071, 1075, 5 U.S.P.Q.2d 1596, 1599 (Fed. Cir. 1988).

In addition, the M.P.E.P. and the Federal Circuit repeatedly warn against using an applicant's disclosure as a blueprint to reconstruct the claimed invention. For example, the M.P.E.P. states, ***“The tendency to resort to 'hindsight' based upon applicant’s disclosure is often difficult to avoid due to the very nature of the examination process. However, impermissible hindsight must be avoided and the legal conclusion must be reached on the basis of the facts gleaned from the prior art.”*** M.P.E.P. § 2142 (emphasis added). The governing Federal Circuit cases are equally clear. “A critical step in analyzing the patentability of claims pursuant to [35 U.S.C. § 103] is casting the mind back to the time of invention, to consider the thinking of one of ordinary skill in the art, guided only by the prior art references and the then-accepted wisdom in the field. . . . Close adherence to this methodology is especially important in cases where the very ease with which the invention can be understood may prompt one ‘to fall victim to the insidious effect of a hindsight syndrome ***wherein that which only the invention taught is used against its teacher.***” *In re Kotzab*, 217 F.3d 1365, 1369, 55 U.S.P.Q.2d 1313, 1316 (Fed. Cir. 2000) (citations omitted);

emphasis added). In *In re Kotzab*, the court noted that to prevent the use of hindsight based on the invention to defeat patentability of the invention, this court requires the examiner to show a motivation to combine the references that create the case of obviousness. *See id.* *See also, e.g., Grain Processing Corp. v. American Maize-Products*, 840 F.2d 902, 907, 5 U.S.P.Q.2d 1788, 1792 (Fed. Cir. 1988). Similarly, in *In re Dembiczak*, the Federal Circuit reversed a finding of obviousness by the Board, ***explaining that the required evidence of such a teaching, suggestion, or motivation is essential to avoid impermissible hindsight reconstruction of an applicant's invention:***

Our case law makes clear that the best defense against the subtle but powerful attraction of hind-sight obviousness analysis is ***rigorous application of the requirement for a showing of the teaching or motivation to combine prior art references***. Combining prior art references without evidence of such a suggestion, teaching, or motivation simply takes the inventor's disclosure as a blueprint for piecing together the prior art to defeat patentability—the essence of hindsight.

175 F.3d at 999, 50 U.S.P.Q.2d at 1617 (emphasis added) (citations omitted; emphasis added).

2. Argument

The Examiner states that *Graves* is “[i]n the same endeavor” as *Acampora*. (Office Action, Page 3). Thus, the Examiner characterizes *Acampora* and *Graves* as being “from the same field of endeavor,” and then concludes that it would have been obvious to combine them. (Office Action, Pages 3-4) First, Applicant does not agree that *Acampora* is necessarily “from the same field of endeavor” as *Graves*. However, even assuming that *Acampora* and *Graves* are at least marginally in the same general field of endeavor, the Examiner has not demonstrated the requisite teaching, suggestion, or motivation in either of these references or in the knowledge generally available to one of ordinary skill in the art at the time of Applicant's invention to combine or modify these references in the manner the Examiner proposes.

According to the Examiner, “it would have been obvious to an ordinary [person of] skill in the art at the time the invention was made to incorporate the wavelength filters with first and second wavelengths taught by Grave into the Acampora's apparatus in order to utilize the multiplexing and aggregation processes. Doing so would provide a cost-effective

to install and operate, and yet sufficiently flexible and scalable to enable service provider to keep in pace with the growth in demand for new services on the network.” (Office Action at 4). The Examiner cites paragraph [0044] in *Graves* in support of this assertion. (*Id.*) Applicant respectfully submits that the Examiner’s assertion that it would have been obvious to combine the teachings of *Acampora* with the teachings of *Graves* to purportedly arrive at Applicant’s invention is entirely insufficient to support a *prima facie* case of obviousness under 35 U.S.C. § 103(a) under the M.P.E.P. and the governing Federal Circuit case law.

It appears that the Examiner has merely proposed an alleged advantage of combining *Graves* with *Acampora* (an advantage which Applicant does not admit could even be achieved by combining these references in the manner the Examiner proposes). While the Examiner has cited a portion of *Graves* that touts an advantage of its system, the Examiner has not pointed to any portions of the cited references that would teach, suggest, or motivate one of ordinary skill in the art at the time of invention to incorporate the cited system disclosed in *Graves* with the particular apparatus disclosed in *Acampora*. In other words, the alleged advantage of the system disclosed in *Graves* does not provide an explanation as to: (1) why it would have been obvious to one of ordinary skill in the art at the time of Applicant’s invention (*without using Applicant’s claims as a guide*) to modify the particular techniques disclosed in *Acampora* with the cited disclosure in *Graves*; (2) how one of ordinary skill in the art at the time of Applicant’s invention would have actually done so; and (3) how doing so would purportedly meet the limitations of Claim 1. Indeed, if it were sufficient for Examiners to merely point to a purported advantage of one reference and conclude that it would have been obvious to combine or modify that reference with other references simply based on that advantage (which, as should be evident from the case law discussed above, it certainly is not), then virtually any two references would be combinable just based on the fact the one reference states an advantage of its system. Of course, as the Federal Circuit has made clear and as discussed above, that is not the law.

It certainly would not have been obvious to one of ordinary skill in the art at the time of invention *to even attempt* to, let alone *to actually*, modify or combine the apparatus disclosed in *Acampora* with the cited system disclosed in *Graves* in the manner proposed by

the Examiner.² Applicant respectfully submits that the Examiner's attempt to modify or combine *Acampora* with *Graves* appears to constitute the type of impermissible hindsight reconstruction of Applicant's claims, using Applicant's claims as a blueprint, that is specifically prohibited by the M.P.E.P. and governing Federal Circuit cases.

Accordingly, since the prior art fails to provide the required teaching, suggestion, or motivation to combine *Acampora* with *Graves* in the manner the Examiner proposes, Applicant respectfully submits that the Examiner's conclusions set forth in the Office Action do not meet the requirements set forth in the M.P.E.P. and the governing Federal Circuit case law for demonstrating a *prima facie* case of obviousness. Applicant respectfully submits that the rejection must therefore be withdrawn.

For at least these additional reasons, Applicant respectfully submits that the proposed *Acampora-Graves* combination does not support a *prima facie* case of obviousness.

E. Conclusion

For at least these reasons, Applicant respectfully requests reconsideration and allowance of independent Claim 58 and its dependent claims. For at least certain analogous reasons, Applicant respectfully requests reconsideration and allowance of independent Claims 62, 65, 68, 71, and 83, and their dependent claims.

No Waiver

All of Applicant's arguments and amendments are without prejudice or disclaimer. Additionally, Applicant has merely discussed example distinctions from the *Acampora* and *Graves* references. Other distinctions may exist, and Applicant reserves the right to discuss these additional distinctions in a later Response or on Appeal, if appropriate. By not responding to additional statements made by the Examiner, Applicant does not acquiesce to the Examiner's additional statements. The example distinctions discussed by Applicant are sufficient to overcome the anticipation rejections.

² If "common knowledge" or "well known" art is relied upon by the Examiner to combine or modify the references, Applicant respectfully requests that the Examiner provide a reference pursuant to M.P.E.P. § 2144.03 to support such an argument. If the Examiner relies on personal knowledge to supply the required motivation or suggestion to combine or modify the references, Applicant respectfully requests that the Examiner provide an affidavit supporting such facts pursuant to M.P.E.P. § 2144.03.

Request for Evidentiary Support

Should a rejection based on any of the above asserted rejections be maintained, Applicant respectfully requests appropriate evidentiary support. Additionally, if the Examiner is relying upon “common knowledge” or “well known” principles to establish the rejection, Applicant requests that a reference be provided in support of this position pursuant to M.P.E.P. § 2144.03. Furthermore, to the extent that the Examiner maintains any rejection based on an “Official Notice” or other information within the Examiner's personal knowledge, Applicant respectfully requests that the Examiner cite a reference as documentary evidence in support of this position or provide an affidavit in accordance with M.P.E.P. § 2144.03 and 37 C.F.R. 1.104(d)(2).

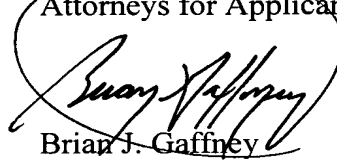
CONCLUSION

Applicant has made an earnest attempt to place this case in condition for allowance. For the foregoing reasons and for other reasons clearly apparent, Applicant respectfully request reconsideration and full allowance of all pending Claims.

Applicant believes that no fees are due. However, the Commissioner is hereby authorized to charge any fees or credit any overpayments to Deposit Account No. 02-0384 of Baker Botts L.L.P.

If the Examiner feels that a conference would advance prosecution of this Application in any manner, Brian J. Gaffney stands willing to conduct such a telephone interview at the convenience of the Examiner. Mr. Gaffney may be reached at (214) 953-6682.

Respectfully submitted,
~~BAKER BOTTS L.L.P.~~
Attorneys for Applicant


Brian J. Gaffney
Reg. No. 51,712

Correspondence Address:

Customer No.

05073

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